

## [11] TROUBLESHOOTING

### 1. Outline

In case of a trouble in the machine, or when a consumable part has nearly reached or already reach the lifetime, the machine detects it, analyze it, and displays it on the display section and notifies the user and the serviceman by a voice message.

The user and the serviceman are bale to perform the proper countermeasures according to a voice message. In case of a trouble, the machine is stopped to restrict damage to a minimum in addition to a voice message.

### 2. Functions and purposes

- 1) Assures safety. (The machine is stopped when a trouble is detected.)
- 2) Restricts damage to a minimum. (The machine is stopped when a trouble is detected.)
- 3) By displaying the trouble content, the trouble position can be identified immediately and accurately. (An accurate repair work can be performed, improving the repair efficiency.)
- 4) By providing a preparatory warning when the lifetime of a consumable part is nearly reached, arrangement of the consumable part can be made in advance. (Stopping the machine by exhaustion of a consumable part is avoidable.)

### 3. Kinds of self diagnostic messages

The self diagnostic messages are classified as follows:

Class 1	User	Troubles and warning messages (paper jam, consumable part life expiration, etc.) which can be processed by the user
	Service	Troubles and warning messages (motor trouble, maintenance, etc.) which can be processed only by a serviceman
	Other	—
Class 2	Warning	Warning messages (consumable part life expiration, etc.) for the user, which are not directly related to any machine trouble.
	Trouble	Related to a machine trouble. The machine is stopped.
	Other	—

## 4. Self diagnostic operation

### A. Self diagnostic operation and work flow

The machine always monitors its own status.

When the machine detects a trouble, it stops operations and displays a trouble message.

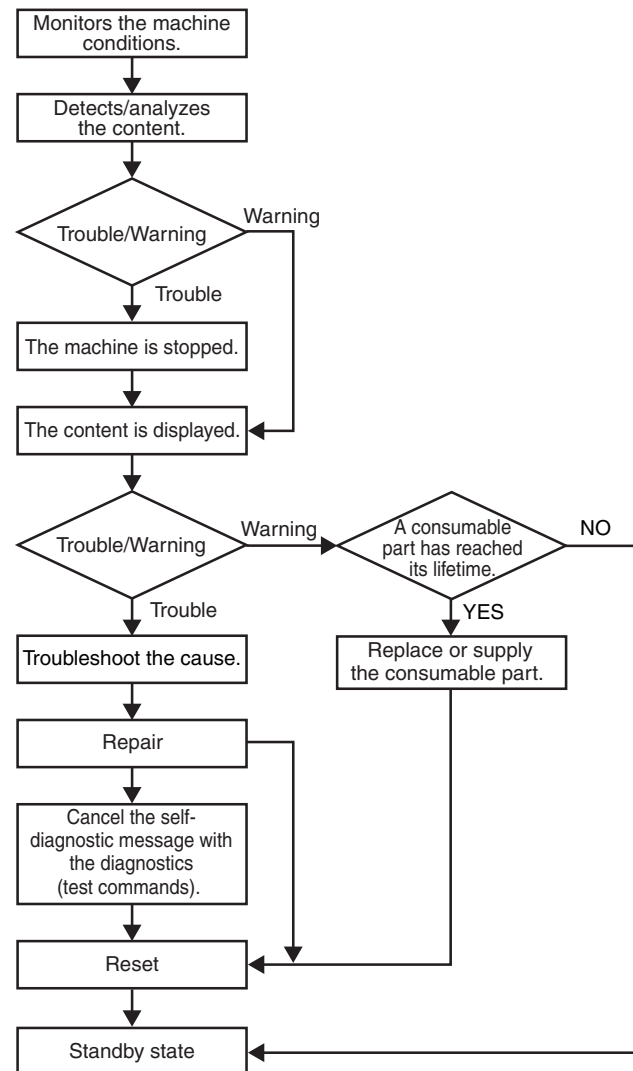
A warning message is provided mainly when a consumable part is nearly or completely exhausted.

When a warning message is provided, the machine may be stopped or may not be stopped depending on the message.

The trouble and warning messages are indicated with the LCD and lamps.

Some trouble messages may be automatically cleared after removing the trouble, and some must be cleared with the simulation.

Some warning messages of consumable parts are automatically cleared when the trouble is repaired. Some other warning messages must be cleared by a simulation.



## 5. List

Main code	Sub code	Content
A0	00	PCU PWB error
C2	10	Image density sensor error/Transfer charger error (Black)
E7	01	Image data memory trouble
	07	ICU gate array trouble
	10	Shading trouble (Black correction)
	11	Shading trouble (White correction)
	20	LED controller initial trouble (Black)
	21	LED controller initial trouble (Cyan)
	22	LED controller initial trouble (Magenta)
	23	LED controller initial trouble (Yellow)
	24	LED controller output trouble (Black)
	25	LED controller output trouble (Cyan)
	26	LED controller output trouble (Magenta)
	27	LED controller output trouble (Yellow)
	28	LED control ASIC connection abnormality
	30	ICU PWB matching error
	40	Color correction data writing abnormality
	41	Color correction data transfer abnormality
	80	ICU-SCN communication trouble (ICU detection)
90	ICU-PCU communication trouble (ICU detection)	
F1	00	Finisher communication trouble (PCU detection)
	02	Finisher transport motor trouble (Finisher detection)
	03	Finisher paddle motor trouble
	06	Finisher slide motor trouble
	10	Finisher staple motor abnormality (Finisher detection)
	11	Finisher bundle process motor abnormality (Finisher detection)
	15	Finisher tray lift motor abnormality (Finisher detection)
	19	Finisher front alignment motor abnormality (Finisher detection)
	20	Finisher rear alignment motor abnormality (Finisher detection)
	31	Finisher fold sensor trouble
	32	Finisher punch unit communication trouble
	33	Finisher punch side registration motor trouble
	34	Finisher punch motor trouble
	35	Finisher punch side registration sensor trouble
	36	Finisher punch registration sensor trouble
	37	Finisher backup RAM trouble
	38	Finisher punch backup RAM trouble
	39	Finisher punch dust sensor trouble
	40	Finisher punch power disconnection trouble
83	Sorter push bar motor trouble	
89	Sorter bin shift motor trouble	
91	Automatic adjustment trouble of the paper sensor in the sorter bin	
F2	39	Process thermistor breakdown
	40	Toner empty sensor abnormality (Black)
	41	Toner empty sensor abnormality (Cyan)
	42	Toner empty sensor abnormality (Magenta)
	43	Toner empty sensor abnormality (Yellow)
	44	Black image density sensor trouble (Transfer belt surface reflection ratio abnormality)
	45	Color image density sensor trouble (Calibration plate surface reflection ratio abnormality)
	58	Process humidity sensor breakdown

Main code	Sub code	Content
F2	70	Developing unit improper cartridge detection (Black)
	71	Developing unit improper cartridge detection (Cyan)
	72	Developing unit improper cartridge detection (Magenta)
	73	Developing unit improper cartridge detection (Yellow)
	74	Developing unit CRUM trouble (Black)
	75	Developing unit CRUM trouble (Cyan)
	76	Developing unit CRUM trouble (Magenta)
	77	Developing unit CRUM trouble (Yellow)
	78	Trouble of image density sensor for registration (Transfer belt surface reflection ratio abnormality)
	80	Half-tone process control 1st batch error (Black)
	81	Half-tone process control 1st batch error (Cyan)
	82	Half-tone process control 1st batch error (Magenta)
	83	Half-tone process control 1st batch error (Yellow)
84	Half-tone process control 2nd batch error (Black)	
85	Half-tone process control 2nd batch error (Cyan)	
86	Half-tone process control 2nd batch error (Magenta)	
87	Half-tone process control 2nd batch error (Yellow)	
90	Half-tone process control limit error	
F3	12	Cassette 1 lift up trouble
F6	00	ICU-FAX communication trouble (ICU detection)
	01	FAX expansion flash memory abnormality (ICU detection)
	04	FAX MODEM operation abnormality
	20	FAX write protect release
	21	Improper combination of the TEL/LIU PWB and the FAX soft switch.
	97	The FAX-BOX PWB is not one for the AR-BC320. (FAX detection)
98	Improper combination of the FAX-BOX destination data and the main unit destination data	
F9	00	ICU-PRT communication trouble (ICU detection)
	01	PRT DRAM trouble
	02	NIC port check error
	20	HDD trouble (PRT controller detection)
H2	00	Thermistor open (HL1)
	01	Thermistor open (HL2)
H3	00	Fusing section high temperature trouble (HL1)
	01	Fusing section high temperature trouble (HL2)
H4	00	Fusing section low temperature trouble (HL1)
	01	Fusing section low temperature trouble (HL2)
H5	01	Five continuous detections of POD1 not-reached jam
L1	00	Mirror feed trouble
L3	00	Mirror return trouble
L4	02	Paper feed motor lock trouble
	06	Transfer belt lift motor trouble
	07	Transfer belt motor trouble
	11	Shift motor trouble
L8	01	Full wave signal not provided
	02	Full wave signal width abnormality
	04	Main power switch abnormality detection
PF	00	RIC copy inhibit signal reception
U0	00	ICU-OPE communication trouble (ICU/OPE detection)
U1	02	RTC read trouble

Main code	Sub code	Content
U2	00	EEPROM read/write error (ICU detection)
	11	EEPROM check sum error (ICU detection)
	30	Production No. data discrepancy (ICU ⇔ ICU)
	80	EEPROM read/write error (SCN detection)
	81	EEPROM check sum error (SCN detection)
	90	EEPROM read/write error (PCU detection)
	91	EEPROM check sum error (PCU detection)
U4	02	ADU alignment plate operation abnormality
U5	00	ADF communication trouble
	01	ADF resist sensor defect
	02	ADF repulsion sensor defect
	03	ADF timing sensor defect
	11	Paper feed motor operation abnormality
U6	00	Desk communication trouble
	01	Desk tray 1 lift motor trouble
	02	Desk tray 2 lift motor trouble
	03	Desk tray 3 lift motor trouble
	10	Desk transport motor trouble
U7	00	RIC communication trouble
UC	02	CPT-ASIC trouble (MFP PWB trouble)

## 6. Details

Main code	Sub code	Title	PCU PWB error		
<b>A0</b>	<b>00</b>	Display	Lamp/Message		
	Phenomenon	Detail		When the power is turned on, conformity of the PCU PWB and the PCU ROM is checked to be found that there is no conformity.	
				Section	PCU PWB
	Case 1	Cause	Check & Remedy		PCU PWB trouble
					Replace the PCU PWB.
	Case 2	Cause	Check & Remedy		PCU PWB mistaken
					Replace the PCU PWB.

Main code	Sub code	Title	Image density sensor error/ Transfer charger error (Black)		
<b>C2</b>	<b>10</b>	Display	Lamp/Message		
	Phenomenon	Detail		Black image density sensor trouble /Transfer trouble (Black) /The deference between the transfer belt surface detection level and the black toner patch density detection level is normal. (Judged in black image density sensor calibration)	
				Section	Transfer
	Case 1	Cause	Check & Remedy		Black image density sensor trouble
					Black density image sensor cleaning, replacement
	Case 2	Cause	Check & Remedy		Transfer voltage trouble
					Check and adjust the transfer voltage.
	Case 3	Cause	Check & Remedy		High voltage PWB trouble
Replace the high voltage PWB.					

Main code	Sub code	Title	Image density sensor error/ Transfer charger error (Black)		
<b>C2</b>	<b>10</b>	Case 4	Cause	Transfer unit trouble	
	Case 4	Check & Remedy		Check the transfer belt surface for dirt and scratches. Replace the transfer belt, replace the cleaning blade, replace the transfer unit.	
				Case 5	Cause
	Case 5	Check & Remedy			PCU PWB replacement
					Case 6
	Case 6	Check & Remedy			Replace the photoconductor unit.
					Case 7
	Case 7	Check & Remedy			Replace the developing unit
Case 8					Cause
	Check & Remedy	Check contact. Replace the harness. Replace the PWB.			

Main code	Sub code	Title	Image data memory trouble		
<b>E7</b>	<b>01</b>	Display	Lamp/Message		
	Phenomenon	Detail		The ICU image data memory (SDRAM) cannot be detected as 256MB or more. The required SDRAM capacity for the model is not provided.	
				Section	ICU PWB
	Case 1	Cause	Check & Remedy		The SDRAM of ICU PWB is not installed. The SDRAM of ICU PWB is improperly installed.
					Check installation of the SDRAM of ICU ASIC PWB.
	Case 2	Cause	Check & Remedy		The SDRAM of ICU PWB does not operate properly.
					Use SIM 60-01 to check the capacity of the SDRAM. Replace the SDRAM of ICU PWB.
	Case 3	Cause	Check & Remedy		ICU PWB abnormality
Replace the ICU PWB.					

Main code	Sub code	Title	ICU gate array trouble		
<b>E7</b>	<b>07</b>	Display	Lamp/Message		
	Phenomenon	Detail		An abnormality occurs in the ICU gate array.	
				Section	ICU PWB
	Case 1	Cause	Check & Remedy		ICU PWB abnormality
					Replace the ICU PWB.
	Case 2	Cause	Check & Remedy		Gate array (ASIC, FPGA) abnormality on the ICU PWB
					Replace the gate array on the ICU PWB.

Main code	Sub code	Title		Shading trouble (Black correction)
<b>E7</b>	<b>10</b>	Display		Lamp/Message
		Phenomenon	Detail	CCD black reading level abnormality when the copy lamp is off.
			Section	CCD unit
		Case 1	Cause	Improper installation of the flat cable to the CCD unit.
			Check & Remedy	Check installation of the flat cable to the CCD unit.
		Case 2	Cause	CCD unit abnormality
			Check & Remedy	Check the CCD unit.
		Case 3	Cause	MFP PWB abnormality
			Check & Remedy	Check the MFP PWB.

Main code	Sub code	Title		Shading trouble (White correction)
<b>E7</b>	<b>11</b>	Display		Lamp/Message
		Phenomenon	Detail	CCD white reading level abnormality when the copy lamp is off.
			Section	CCD unit
		Case 1	Cause	Improper installation of the flat cable to the CCD unit.
			Check & Remedy	Check installation of the flat cable to the CCD unit.
		Case 2	Cause	Dirt on the mirror, the lens, or the reference white plate.
			Check & Remedy	Clean the mirror, the lens, or the reference white plate.
		Case 3	Cause	CCD unit abnormality
			Check & Remedy	Check the CCD unit.
		Case 4	Cause	MFP PWB abnormality
			Check & Remedy	Check the MFP PWB.

Main code	Sub code	Title		LED controller initial trouble (Black)
<b>E7</b>	<b>20</b>	Display		Lamp/Message
		Phenomenon	Detail	The initial process of the LED controller cannot be completed properly.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector.
			Check & Remedy	Check connection of the LED head connector.
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title		LED controller initial trouble (Cyan)
<b>E7</b>	<b>21</b>	Display		Lamp/Message
		Phenomenon	Detail	The initial process of the LED controller cannot be completed properly.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector.
			Check & Remedy	Check connection of the LED head connector
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title		LED controller initial trouble (Magenta)
<b>E7</b>	<b>22</b>	Display		Lamp/Message
		Phenomenon	Detail	The initial process of the LED controller cannot be completed properly.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector.
			Check & Remedy	Check connection of the LED head connector
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title		LED controller initial trouble (Yellow)
<b>E7</b>	<b>23</b>	Display		Lamp/Message
		Phenomenon	Detail	The initial process of the LED controller cannot be completed properly.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector
			Check & Remedy	Check connection of the LED head connector.
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title	LED controller output trouble (Black)	
<b>E7</b>	<b>24</b>	Display	Lamp/Message	
		Phenomenon	Detail	When printing, the print end signal for each page is not properly provided.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector.
			Check & Remedy	Check connection of the LED head connector.
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title	LED controller output trouble (Yellow)	
<b>E7</b>	<b>27</b>	Display	Lamp/Message	
		Phenomenon	Detail	When printing, the print end signal for each page is not properly provided.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector
			Check & Remedy	Check connection of the LED head connector.
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title	LED controller output trouble (Cyan)	
<b>E7</b>	<b>25</b>	Display	Lamp/Message	
		Phenomenon	Detail	When printing, the print end signal for each page is not properly provided.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector.
			Check & Remedy	Check connection of the LED head connector.
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title	LED control ASIC connection abnormality	
<b>E7</b>	<b>28</b>	Display	Lamp/Message	
		Phenomenon	Detail	Access error between the PCU PWB CPU and the LED control ASIC
			Section	ICU/PCU PWB
		Case 1	Cause	Disconnection of the ICU/PCU PWB communication connector
			Check & Remedy	Check connection of the ICU/PCU PWB communication connector
		Case 2	Cause	ICU/PCU PWB communication harness trouble.
			Check & Remedy	Check the ICU/PCU PWB communication harness.
		Case 3	Cause	ICU PWB/PCU PWB trouble
			Check & Remedy	Check grounding of the machine. Replace the ICU PWB or the PCU PWB.

Main code	Sub code	Title	LED controller output trouble (Magenta)	
<b>E7</b>	<b>26</b>	Display	Lamp/Message	
		Phenomenon	Detail	When printing, the print end signal for each page is not properly provided.
			Section	LED/ICU PWB
		Case 1	Cause	Disconnection of the LED head connector.
			Check & Remedy	Check connection of the LED head connector.
		Case 2	Cause	Disconnection of the harness inside the LED head.
			Check & Remedy	Replace the LED head unit.
		Case 3	Cause	ICU PWB abnormality
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title	ICU PWB matching error	
<b>E7</b>	<b>30</b>	Display	Lamp/Message	
		Phenomenon	Detail	Check matching between the machine and the ICU PWB (by the identification port) when the power is turned on. If matching is improper, it is judged as a trouble.
			Section	ICU PWB
		Case 1	Cause	An ICU PWB for the AR-C260/C260M is installed to the AR-BC320.
			Check & Remedy	Replace the ICU PWB.
		Case 2	Cause	ICU PWB abnormality (When the identification port is abnormal)
			Check & Remedy	Replace the ICU PWB.

Main code	Sub code	Title		Color correction data write error	
<b>E7</b>	<b>40</b>	Display		Lamp/Message	
		Phenomenon	Detail	Data write error to the Nand-Flash for holding color correction data	
			Section	MFP PWB	
		Case 1	Cause	Color correction data rewrite error	
			Check & Remedy	Perform rewriting of color correction data again.	
		Case 2	Cause	MFP PWB trouble	
			Check & Remedy	Replace the MFP PWB.	

Main code	Sub code	Title		Color correction data transfer abnormality	
<b>E7</b>	<b>41</b>	Display		Lamp/Message	
		Phenomenon	Detail	Data transfer error from the Nand-Flash for holding color correction data to the FC-RAM for holding color correction image process	
			Section	MFP PWB	
		Case 1	Cause	MFP PWB trouble	
			Check & Remedy	Replace the MFP PWB.	

Main code	Sub code	Title		ICU-SCN communication trouble (ICU detection)	
<b>E7</b>	<b>80</b>	Display		Lamp/Message	
		Phenomenon	Detail	Communication establishment error, framing, parity, protocol error	
			Section	ICU/MFP PWB	
		Case 1	Cause	Disconnection of the ICU/MFP PWB scanner communication connector. Defective harness of the ICU PWB and the MFP PWB.	
			Check & Remedy	Check connection of the ICU PWB and the MFP PWB. Check the harness.	
		Case 2	Cause	ICU/MFP PWB trouble	
			Check & Remedy	Check grounding of the machine. Replace the ICU PWB or the MFP PWB.	

Main code	Sub code	Title		ICU-PCU communication trouble (ICU detection)	
<b>E7</b>	<b>90</b>	Display		Lamp/Message	
		Phenomenon	Detail	Communication establishment error, framing, parity, protocol error	
			Section	ICU/PCU PWB	
		Case 1	Cause	Disconnection of the ICU/PCU PWB scanner communication connector. Defective harness of the ICU PWB and the PCU PWB.	
			Check & Remedy	Check connection of the ICU PWB and the PCU PWB. Check the harness.	
		Case 2	Cause	ICU/PCU PWB trouble	
			Check & Remedy	Check grounding of the machine. Replace the ICU PWB or the PCU PWB.	

Main code	Sub code	Title		Finisher communication trouble (Machine detection)	
<b>F1</b>	<b>00</b>	Display		Lamp/Message	
		Phenomenon	Detail	Communication line test error when turning on the power or after canceling the exclusive simulation. Communication error with the finisher.	
			Section	PCU PWB and finisher	
		Case 1	Cause	Disconnection of the PCU-finisher connector, defective contact or disconnection of the harness.	
			Check & Remedy	Check the connector and the harness of the communication line.	
		Case 2	Cause	Finisher control PWB trouble	
			Check & Remedy	Replace the finisher control PWB.	
		Case 3	Cause	Control PWB (PCU) trouble	
			Check & Remedy	Replace the PCU PWB.	
		Case 4	Cause	Malfunctions by noises	
			Check & Remedy	—	
		Common	Cancel method	Can be canceled by turning OFF/ON the power.	

Main code	Sub code	Title	Finisher transport motor trouble (Finisher detection)	
<b>F1</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	Transport motor drive trouble
			Section	Transport
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the transport motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher staple motor trouble (Finisher detection)	
<b>F1</b>	<b>10</b>	Display	Lamp/Message	
		Phenomenon	Detail	Stapling operation trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher paddle motor trouble	
<b>F1</b>	<b>03</b>	Display	Lamp/Message	
		Phenomenon	Detail	Paddle motor operation trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher bundle process motor trouble (Finisher detection)	
<b>F1</b>	<b>11</b>	Display	Lamp/Message	
		Phenomenon	Detail	Bundle process motor trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher slide motor trouble	
<b>F1</b>	<b>06</b>	Display	Lamp/Message	
		Phenomenon	Detail	Slide motor operation trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher tray lift motor trouble (Finisher detection)	
<b>F1</b>	<b>15</b>	Display	Lamp/Message	
		Phenomenon	Detail	Lift motor trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher front alignment motor trouble (Finisher detection)	
<b>F1</b>	<b>19</b>	Display	Lamp/Message	
		Phenomenon	Detail	Front alignment motor trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher rear alignment motor trouble (Finisher detection)	
<b>F1</b>	<b>20</b>	Display	Lamp/Message	
		Phenomenon	Detail	Rear alignment motor trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher fold sensor trouble	
<b>F1</b>	<b>31</b>	Display	Lamp/Message	
		Phenomenon	Detail	Sensor input value abnormality
			Section	Finisher
		Case 1	Cause	Sensor breakage
			Check & Remedy	Use SIM 3-2 to check the sensor operation.
		Case 2	Cause	Harness disconnection
			Check & Remedy	Same as case 1.
		Case 3	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title	Finisher punch unit communication trouble	
<b>F1</b>	<b>32</b>	Display	Lamp/Message	
		Phenomenon	Detail	Communication error between the console finisher and the punch unit
			Section	Finisher
		Case 1	Cause	Improper connection or disconnection of the connector and the harness of the console finisher and the punch unit.
			Check & Remedy	Check the connector and the harness of the communication line.
		Case 2	Cause	Control PWB (PCU) trouble
			Check & Remedy	Replace the PCU PWB.
		Case 3	Cause	Console finisher control PWB trouble
			Check & Remedy	Replace the console finisher control PWB.
		Case 4	Cause	Malfunction by noises
			Check & Remedy	
		Common	Cancel method	Can be canceled by turning OFF/ON the power.

Main code	Sub code	Title	Finisher punch side registration motor trouble	
<b>F1</b>	<b>33</b>	Display	Lamp/Message	
		Phenomenon	Detail	Punch side registration motor operation trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.



Main code	Sub code	Title		
<b>F1</b>	<b>34</b>	<b>Display</b>	<b>Finisher punch motor trouble</b>	
			Lamp/Message	
		Phenomenon	Detail	Punch motor operation trouble
			Section	Finisher
		Case 1	Cause	Motor lock
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.
		Case 2	Cause	Motor RPM abnormality
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Over current to the motor
			Check & Remedy	Same as Case 1.
		Case 4	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title		
<b>F1</b>	<b>35</b>	<b>Display</b>	<b>Finisher punch side registration sensor trouble</b>	
			Lamp/Message	
		Phenomenon	Detail	Sensor input value abnormality
			Section	Finisher
		Case 1	Cause	Sensor breakage
			Check & Remedy	Use SIM 3-2 to check the sensor operation.
		Case 2	Cause	Harness disconnection
			Check & Remedy	Same as case 1.
		Case 3	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title		
<b>F1</b>	<b>36</b>	<b>Display</b>	<b>Finisher punch registration sensor trouble</b>	
			Lamp/Message	
		Phenomenon	Detail	Sensor input value abnormality
			Section	Finisher
		Case 1	Cause	Sensor breakage
			Check & Remedy	Use SIM 3-2 to check the sensor operation.
		Case 2	Cause	Harness disconnection
			Check & Remedy	Same as case 1.
		Case 3	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title		
<b>F1</b>	<b>37</b>	<b>Display</b>	<b>Finisher backup RAM trouble</b>	
			Lamp/Message	
		Phenomenon	Detail	Writing to the backup RAM is started but not completed in 250msec. When writing to the backup RAM, if the write data do not coincide with the read data, writing is performed again. However, the write data still do not coincide with the read data.
			Section	Finisher
		Case 1	Cause	Console finisher control PWB, backup RAM trouble
			Check & Remedy	Replace the console finisher control PWB.
		Case 2	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Malfunction caused by noises
			Check & Remedy	Turn off the machine power, and turn it on again.

Main code	Sub code	Title		
<b>F1</b>	<b>38</b>	<b>Display</b>	<b>Finisher punch backup RAM trouble</b>	
			Lamp/Message	
		Phenomenon	Detail	Abnormal transformation of punch unit backup RAM contents
			Section	Finisher
		Case 1	Cause	Punch control PWB trouble
			Check & Remedy	Replace the punch control PWB.
		Case 2	Cause	Malfunction caused by noises
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title		
<b>F1</b>	<b>39</b>	<b>Display</b>	<b>Finisher punch dust sensor trouble</b>	
			Lamp/Message	
		Phenomenon	Detail	Punch dust sensor detection trouble
			Section	Finisher
		Case 1	Cause	Sensor breakage
			Check & Remedy	Use SIM 3-2 to check the sensor operation.
		Case 2	Cause	Harness disconnection
			Check & Remedy	Same as Case 1.
		Case 3	Cause	Console finisher control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title		Finisher punch power disconnection trouble
<b>F1</b>	<b>40</b>	Display		Lamp/Message
		Phenomenon	Detail	The power disconnection of the punch unit is detected.
			Section	Finisher
		Case 1	Cause	Harness disconnection
			Check & Remedy	Use SIM 3-3 to check the punching operation.
		Case 2	Cause	Punch control PWB trouble
			Check & Remedy	Same as Case 1.

Main code	Sub code	Title		Sorter push bar motor trouble
<b>F1</b>	<b>83</b>	Display		Lamp/Message
		Phenomenon	Detail	The push bar home position signal is not acknowledged within 2sec from the start of initializing. The home position sensor remains ON after 20 pulses of shift operation of the push bar from its home position.
			Section	Sorter
		Common	Check	Execute SIM 3-2 and 3-3 to check the push bar drive motor operations and the sensor operations.
		Case 1	Cause	Push bar motor trouble
			Check & Remedy	Replace the push bar motor.
		Case 2	Cause	Push bar home position sensor trouble
			Check & Remedy	Replace the push bar home position sensor.
		Case 3	Cause	The circuit breaker (CB1) is operating.
			Check & Remedy	Remove the cause for operation of the circuit breaker, and reset the circuit breaker.
		Case 4	Cause	There is a mechanical bur in the push bar shifting path.
			Check & Remedy	Repair the mechanism to remove the bur.
		Case 5	Cause	Sorter controller PWB trouble
			Check & Remedy	Replace the sorter controller PWB, and perform the bin paper sensor sensitivity adjustment and the guide bar motor oscillating range adjustment.

Main code	Sub code	Title		Sorter bin shift motor trouble
<b>F1</b>	<b>89</b>	Display		Lamp/Message
		Phenomenon	Detail	The lead cam position sensor signal is not acknowledged within 3.4sec (2.4sec) from the bin shift motor ON signal. The operation is not completed within 30sec from the start of bin's shift operation to its home position. The rotation sensor output signal is not detected within 0.25sec from output of the bin shift motor ON signal.
			Section	Sorter
		Common	Check	Execute SIM 3-2 and 3-3 to check the guide bar drive motor operations and the sensor operations. (Case 1, 2) Check the voltage (about 24V) between J8-1 and J8-2 on the bin shift motor driver PWB at the timing of the bin shift motor. (Case 3 to 5)
		Case 1	Cause	Cable trouble between the bin shift motor and the sorter controller PWB.
			Check & Remedy	Check and connect the cable properly between the bin shift motor and the sorter controller PWB.
		Case 2	Cause	The circuit breaker (CB1) is operating.
			Check & Remedy	Remove the cause for operation of the circuit breaker, and reset the circuit breaker.
		Case 3	Cause	Wiring trouble of the bin shift motor (M1).
			Check & Remedy	Correct wiring of the bin shift motor.
		Case 4	Cause	Bin shift motor trouble
			Check & Remedy	Replace the bin shift motor.
		Case 5	Cause	Sorter controller PWB trouble
			Check & Remedy	Replace the sorter controller PWB, and perform the bin paper sensor sensitivity adjustment and the guide bar motor oscillating range adjustment.
		Case 6	Cause	Bin shift mechanism trouble
			Check & Remedy	Repair the mechanism.

Main code	Sub code	Title		Automatic adjustment trouble of the paper sensor in the sorter bin
<b>F1</b>	<b>91</b>	Display	Lamp/Message	
		Phenomenon	Detail	Sensor output abnormality when adjusting the sensor detection level.
			Section	Sorter
		Common	Check	Execute SIM 3-2 to check the sensor output.
		Case 1	Cause	Trouble of the paper sensor in the bin.
			Check & Remedy	Replace the paper sensor in the bin.
		Case 2	Cause	Sorter controller PWB trouble
			Check & Remedy	Replace the sorter controller PWB, and perform the sensor sensitivity adjustment in the bin and the guide bar motor oscillation range adjustment.

Main code	Sub code	Title		Process thermistor breakdown
<b>F2</b>	<b>39</b>	Display	Lamp/Message	
		Phenomenon	Detail	Process thermistor open
			Section	Drum cartridge
		Case 1	Cause	Process thermistor trouble
			Check & Remedy	Replace the process thermistor.
		Case 2	Cause	Disconnection of the process thermistor harness.
			Check & Remedy	Check connection of the connector and the harness of the process thermistor.
		Case 3	Cause	PCU PWB trouble
			Check & Remedy	Replace the PCU PWB.

Main code	Sub code	Title		Toner empty sensor abnormality (Black)
<b>F2</b>	<b>40</b>	Display	Lamp/Message	
		Phenomenon	Detail	Toner empty sensor output abnormality
			Section	Cartridge
		Case 1	Cause	Connector harness trouble, connector disconnection
			Check & Remedy	1. Check connection of the toner empty sensor. → Connect it properly. 2. Check connection of the connector harness to the PCU PWB. → Connect it properly. 3. Check connection of the cartridge. → Connect it properly. 4. Check for disconnection of the harness. → Replace the harness.
		Case 2	Cause	Cartridge trouble
			Check & Remedy	Replace the cartridge.

Main code	Sub code	Title		Toner empty sensor abnormality (Cyan)
<b>F2</b>	<b>41</b>	Display	Lamp/Message	
		Phenomenon	Detail	Toner empty sensor output abnormality
			Section	Cartridge
		Case 1	Cause	Connector harness trouble, connector disconnection
			Check & Remedy	1. Check connection of the toner empty sensor. → Connect it properly. 2. Check connection of the connector harness to the PCU PWB. → Connect it properly. 3. Check connection of the cartridge. → Connect it properly. 4. Check for disconnection of the harness. → Replace the harness.
		Case 2	Cause	Cartridge trouble
			Check & Remedy	Replace the cartridge.

Main code	Sub code	Title		Toner empty sensor abnormality (Magenta)	
<b>F2</b>	<b>42</b>	Display	Lamp/Message		
		Phenomenon	Detail	Toner empty sensor output abnormality	
			Section	Cartridge	
		Case 1	Cause	Connector harness trouble, connector disconnection	
			Check & Remedy	1. Check connection of the toner empty sensor. → Connect it properly. 2. Check connection of the connector harness to the PCU PWB. → Connect it properly. 3. Check connection of the cartridge. → Connect it properly. 4. Check for disconnection of the harness. → Replace the harness.	
		Case 2	Cause	Cartridge trouble	
			Check & Remedy	Replace the cartridge.	

Main code	Sub code	Title		Toner empty sensor abnormality (Yellow)	
<b>F2</b>	<b>43</b>	Display	Lamp/Message		
		Phenomenon	Detail	Toner empty sensor output abnormality	
			Section	Cartridge	
		Case 1	Cause	Connector harness trouble, connector disconnection	
			Check & Remedy	1. Check connection of the toner empty sensor. → Connect it properly. 2. Check connection of the connector harness to the PCU PWB. → Connect it properly. 3. Check connection of the cartridge. → Connect it properly. 4. Check for disconnection of the harness. → Replace the harness.	
		Case 2	Cause	Cartridge trouble	
			Check & Remedy	Replace the cartridge.	

Main code	Sub code	Title		Black image density sensor trouble (Transfer belt surface reflection ratio abnormality)	
<b>F2</b>	<b>44</b>	Display	Lamp/Message		
		Phenomenon	Detail	Before starting process control, the transfer belt surface is scanned with the image density sensor to adjust the sensor gain so that the output becomes a fixed value. However, when the sensor gain is changed, the output is not within the specified range.	
			Section	—	
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.	
		Case 1	Cause	When "Error" occurs in SIM 44-2: 1. Dirt/defect of the image density sensor 2. Disconnection of the harness between the PCU PWB and the image density sensor 3. Calibration plate solenoid operation trouble	
			Check & Remedy	1. Clean/replace the image density sensor. 2. Connect/replace the harness between the PCU PWB and the image density sensor. 3. Replace the calibration plate solenoid.	
		Case 2	Cause	When SIM 44-2 is completed: 1. Insufficient cleaning of the transfer belt.	
			Check & Remedy	1. Check the transfer belt surface.	

Main code	Sub code	Title		Color image density sensor trouble (Calibration plate surface reflection ratio abnormality)	
<b>F2</b>	<b>45</b>	Display	Lamp/Message		
		Phenomenon	Detail	Before starting process control, the calibration plate surface is scanned with the image density sensor to adjust the sensor gain so that the output becomes a fixed value. However, when the sensor gain is changed, the output is not within the specified range.	
			Section	—	
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.	

Main code	Sub code	Title	Color image density sensor trouble (Calibration plate surface reflection ratio abnormality)	
<b>F2</b>	<b>45</b>	Case 1	Cause	When "Error" occurs in SIM 44-2: 1. Dirt/defect of the image density sensor 2. Disconnection of the harness between the PCU PWB and the image density sensor
			Check & Remedy	1. Clean/replace the image density sensor. 2. Connect/replace the harness between the PCU PWB and the image density sensor.
		Case 2	Cause	When SIM 44-2 is completed: 1. Dirt on the calibration plate, calibration plate solenoid operation trouble
			Check & Remedy	1. Clean the calibration plate. Replace the calibration plate solenoid.

Main code	Sub code	Title	Process humidity sensor breakdown	
<b>F2</b>	<b>58</b>	Display	Lamp/Message	
		Phenomenon	Detail	Process humidity sensor open
			Section	Process
		Case 1	Cause	Process humidity sensor harness disconnection
			Check & Remedy	Check connection of the process humidity sensor harness.
		Case 2	Cause	Process humidity sensor trouble
			Check & Remedy	Replace the process humidity sensor.
		Case 3	Cause	PCU PWB trouble
			Check & Remedy	Replace the PCU PWB.

Main code	Sub code	Title	Developing unit improper cartridge detection (Black)	
<b>F2</b>	<b>70</b>	Display	Lamp/Message	
		Phenomenon	Detail	When detecting the normal CRUM of the cartridge, improper data are detected in the CRUM contents.
			Section	Developing
		Case 1	Cause	Insertion of an improper cartridge. Developing unit trouble
			Check & Remedy	Replace the developing unit.

Main code	Sub code	Title	Developing unit improper cartridge detection (Cyan)	
<b>F2</b>	<b>71</b>	Display	Lamp/Message	
		Phenomenon	Detail	When detecting the normal CRUM of the cartridge, improper data are detected in the CRUM contents.
			Section	Developing
		Case 1	Cause	Insertion of an improper cartridge. Developing unit trouble
			Check & Remedy	Replace the developing unit.

Main code	Sub code	Title	Developing unit improper cartridge detection (Magenta)	
<b>F2</b>	<b>72</b>	Display	Lamp/Message	
		Phenomenon	Detail	When detecting the normal CRUM of the cartridge, improper data are detected in the CRUM contents.
			Section	Developing
		Case 1	Cause	Insertion of an improper cartridge. Developing unit trouble
			Check & Remedy	Replace the developing unit.

Main code	Sub code	Title	Developing unit improper cartridge detection (Yellow)	
<b>F2</b>	<b>73</b>	Display	Lamp/Message	
		Phenomenon	Detail	When detecting the normal CRUM of the cartridge, improper data are detected in the CRUM contents.
			Section	Developing
		Case 1	Cause	Insertion of an improper cartridge. Developing unit trouble
			Check & Remedy	Replace the developing unit.

Main code	Sub code	Title	Developing unit CRUM trouble (Black)	
<b>F2</b>	<b>74</b>	Display	Lamp/Message	
		Phenomenon	Detail	CRUM read/write error
			Section	Developing
		Case 1	Cause	Improper connection or disconnection of the connector and the harness between the PCU and the CRUM.
			Check & Remedy	Check the connector and the harness between the PCU and the CRUM.
		Case 2	Cause	Developing unit trouble
			Check & Remedy	Replace the developing unit.
		Case 3	Cause	Control PWB (PCU) trouble
			Check & Remedy	Replace the PCU PWB.

Main code	Sub code	Title		Developing unit CRUM trouble (Cyan)		
<b>F2</b>	<b>75</b>	Display	Lamp/Message			
		Phenomenon	Detail	CRUM read/write error		
			Section	Developing		
		Case 1	Cause	Improper connection or disconnection of the connector and the harness between the PCU and the CRUM.		
			Check & Remedy	Check the connector and the harness between the PCU and the CRUM.		
		Case 2	Cause	Developing unit trouble		
			Check & Remedy	Replace the developing unit.		
		Case 3	Cause	Control PWB (PCU) trouble		
			Check & Remedy	Replace the PCU PWB.		

Main code	Sub code	Title		Developing unit CRUM trouble (Magenta)		
<b>F2</b>	<b>76</b>	Display	Lamp/Message			
		Phenomenon	Detail	CRUM read/write error		
			Section	Developing		
		Case 1	Cause	Improper connection or disconnection of the connector and the harness between the PCU and the CRUM.		
			Check & Remedy	Check the connector and the harness between the PCU and the CRUM.		
		Case 2	Cause	Developing unit trouble		
			Check & Remedy	Replace the developing unit.		
		Case 3	Cause	Control PWB (PCU) trouble		
			Check & Remedy	Replace the PCU PWB.		

Main code	Sub code	Title		Developing unit CRUM trouble (Yellow)		
<b>F2</b>	<b>77</b>	Display	Lamp/Message			
		Phenomenon	Detail	CRUM read/write error		
			Section	Developing		
		Case 1	Cause	Improper connection or disconnection of the connector and the harness between the PCU and the CRUM.		
			Check & Remedy	Check the connector and the harness between the PCU and the CRUM.		
		Case 2	Cause	Developing unit trouble		
			Check & Remedy	Replace the developing unit.		
		Case 3	Cause	Control PWB (PCU) trouble		
			Check & Remedy	Replace the PCU PWB.		

Main code	Sub code	Title		Trouble of image density sensor for registration (Transfer belt surface reflection ratio abnormality)	
<b>F2</b>	<b>78</b>	Display	Lamp/Message		
		Phenomenon	Detail	Before starting registration, the transfer belt surface is scanned with the image density sensor to adjust the sensor gain so that the output becomes a fixed value. However, when the sensor gain is changed, the value is not within the specified range.	
			Section	—	
			Case 1	Cause	Image density sensor trouble, disconnection of the harness between the PCU PWB and the image density sensor, dirt on the image density sensor.
		Check & Remedy		Check the sensor and the harness.	
		Case 2	Cause	Calibration plate solenoid operation trouble	
			Check & Remedy	Check the calibration plate solenoid operation.	
		Case 3	Cause	Insufficient cleaning of the transfer belt.	
			Check & Remedy	Check the transfer belt surface.	

Main code	Sub code	Title		Half-tone process control 1st batch trouble (Black)		
<b>F2</b>	<b>80</b>	Display	Lamp/Message			
		Phenomenon	Detail	First step operation error during half-tone process control		
			Section	—		
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.		
			Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble	
		Check & Remedy		1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.		
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble		
			Check & Remedy	Check the drum surface and the belt surface.		

Main code	Sub code	Title	Half-tone process control 1st batch trouble (Cyan)	
<b>F2</b>	<b>81</b>	Display	Lamp/Message	
		Phenomenon	Detail	First step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process control 1st batch trouble (Yellow)	
<b>F2</b>	<b>83</b>	Display	Lamp/Message	
		Phenomenon	Detail	First step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process control 1st batch trouble (Magenta)	
<b>F2</b>	<b>82</b>	Display	Lamp/Message	
		Phenomenon	Detail	First step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process control 2nd batch trouble (Black)	
<b>F2</b>	<b>84</b>	Display	Lamp/Message	
		Phenomenon	Detail	Second step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process control 2nd batch trouble (Cyan)	
<b>F2</b>	<b>85</b>	Display	Lamp/Message	
		Phenomenon	Detail	Second step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process control 2nd batch trouble (Yellow)	
<b>F2</b>	<b>87</b>	Display	Lamp/Message	
		Phenomenon	Detail	Second step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process control 2nd batch trouble (Magenta)	
<b>F2</b>	<b>86</b>	Display	Lamp/Message	
		Phenomenon	Detail	Second step operation error during half-tone process control
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.
		Case 2	Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
			Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title	Half-tone process limit error	
<b>F2</b>	<b>90</b>	Display	Lamp/Message	
		Phenomenon	Detail	The difference between the correction value after execution of half-tone process control and the previous correction value exceeds the specified max. value of each color. <The error is recorded in the trouble history, but F2 trouble is not indicated on the display and the previous correction value is remained.>
			Section	—
		Common	Check	Use SIM 44-2 to adjust the process control sensor gain.
		Case 1	Cause	When "Error" occurs in the gain adjustment of SIM 44-2: 1. Disconnection of the harness between the PCU PWB and the image density sensor. 2. Image density sensor dirt/trouble
			Check & Remedy	1. Check connection of the harness between the PCU PWB and the image density sensor. 2. Clean/replace the image density sensor.



Main code	Sub code	Title		<b>Half-tone process limit error</b>	
<b>F2</b>	<b>90</b>	Case 2		Cause	When SIM 44-2 gain adjustment is completed: Insufficient cleaning of the transfer belt, calibration plate solenoid operation trouble
				Check & Remedy	Check the drum surface and the belt surface.

Main code	Sub code	Title		<b>Cassette 1 lift-up trouble</b>	
<b>F3</b>	<b>12</b>	Display		Lamp/Message	
		Phenomenon	Detail	LUD1 does not turn on within the specified time.	
			Section	—	
		Case 1	Cause	LUD1 sensor trouble, disconnection of harness among the PCU PWB, the lift-up unit, and the paper feed unit.	
			Check & Remedy	Check LUD1, its harness, and the connector.	
		Case 2	Cause	Cassette 1 lift-up motor trouble	
			Check & Remedy	Check the lift-up unit.	

Main code	Sub code	Title		<b>ICU-FAX communication trouble (ICU detection)</b>	
<b>F6</b>	<b>00</b>	Display		Lamp/Message	
		Phenomenon	Detail	Communication establishment error, framing, parity, protocol error	
			Section	FAX	
		Case 1	Cause	Slave unit PWB connector connection trouble. Slave unit PWB-ICU PWB harness trouble	
			Check & Remedy	Check connection between the slave unit PWB and the ICU PWB, and check the harness.	
		Case 2	Cause	Broken pin of the mother board connector of the slave unit PWB	
			Check & Remedy	Check the connector of the slave unit PWB.	
		Case 3	Cause	Slave unit ROM trouble/ No ROM/ Improper insertion of ROM/ ROM pin breakage	
			Check & Remedy	Check grounding of the main unit. Check the ROM of the slave unit PWB.	

Main code	Sub code	Title		<b>FAX expansion flash memory abnormality (ICU detection)</b>	
<b>F6</b>	<b>01</b>	Display		Lamp/Message	
		Phenomenon	Detail	An expansion flash memory with SRAM backup data in it is installed.	
			Section	FAX	
		Case 1	Cause	SRAM backup data are detected in the expansion flash memory. The simulation function (SIM 66-19) is provided to save SRAM backup data into an expansion flash memory. This trouble occurs when an expansion flash memory to which SRAM backup data are saved with the above function is installed.	
			Check & Remedy	Use SIM 66-20 to restore the backup data to the SRAM, and use SIM 66-10 to clear the expansion flash memory. If the data are unnecessary, simply clear the expansion memory with SIM 66-10.	

Main code	Sub code	Title		<b>FAX MODEM operation abnormality</b>	
<b>F6</b>	<b>04</b>	Display		Lamp/Message	
		Phenomenon	Detail	FAX PWB MODEM chip operation trouble	
			Section	FAX	
		Case 1	Cause	Normal operation is made with the FAX PWB SW101 on the BOOT side. FAX PWB MODEM chip operation trouble	
			Check & Remedy	Set the FAX PWB SW101 to the other side than the BOOT side, and supply power again. Replace the FAX PWB.	

Main code	Sub code	Title		<b>FAX write protect release</b>	
<b>F6</b>	<b>20</b>	Display		Lamp/Message	
		Phenomenon	Detail	The write protect JP of the ICU PWB is released.	
			Section	FAX	
		Case 1	Cause	The FAX write protect pin is set to Write Enable.	
			Check & Remedy	Check the write protect pin of the ICU PWB.	
		Case 2	Cause	ICU PWB trouble	
			Check & Remedy	Replace the ICU PWB.	
		Case 3	Cause	FAX PWB trouble	
			Check & Remedy	Replace the FAX PWB.	

Main code	Sub code	Title		<b>Improper combination of the TEL/LIU PWB and the FAX soft switch.</b>	
<b>F6</b>	<b>21</b>	Display	Lamp/Message		
		Phenomenon	Detail	Improper combination of the TEL/LIU PWB and the FAX PWB information (soft switch)	
			Section	FAX	
		Case 1	Cause	The destination of the installed TEL/LIU PWB differs.	
			Check & Remedy	Check the destination of the TEL/LIU PWB.	
		Case 2	Cause	The FAX PWB information (soft switch) differs.	
			Check & Remedy	Check the FAX PWB information (soft switch).	
		Case 3	Cause	TEL/LIU PWB abnormality	
			Check & Remedy	Replace the TEL/LIU PWB.	

Main code	Sub code	Title		<b>The FAX-BOX PWB is not one for the AR-BC320. (FAX detection)</b>	
<b>F6</b>	<b>97</b>	Display	Lamp/Message		
		Phenomenon	Detail	The Modem controller of the FAX-BOX is not one for the AR-BC320.	
			Section	FAX	
		Case 1	Cause	The FAX-BOX Modem controller PWB information (hard detection) is not for the AR-BC320. (A Modem controller PWB for the AR-FX5/FX6 or the AR-FX8 is used.)	
			Check & Remedy	1. Check the FAX-BOX MODEM controller. 2. Replace the MODEM controller PWB with one for the AR-BC320.	

Main code	Sub code	Title		<b>Improper combination of the FAX-BOX destination data and the main unit destination data</b>	
<b>F6</b>	<b>98</b>	Display	Lamp/Message		
		Phenomenon	Detail	Improper combination of the FAX-BOX destination data and the main unit destination data	
			Section	FAX	
		Case 1	Cause	Improper combination of the destination written in the EEPROM on the FAX-BOX PWB and the main unit destination data (set with SIM 26-6).	
			Check & Remedy	1. Check the destination of the FAX-BOX. 2. Check the destination of the main unit with SIM 26-6. 3. Use a proper combination of the main unit and the FAX-BOX.	

Main code	Sub code	Title		<b>ICU-PRT communication trouble (ICU detection)</b>	
<b>F9</b>	<b>00</b>	Display	Lamp/Message		
		Phenomenon	Detail	Communication establishment error, framing, parity, protocol error	
			Section	—	
		Case 1	Cause	Defective connection of the ICU/PRT PWB communication connector, defective harness between the ICU PWB and the PRT PWB, defective ICU PWB/PRT PWB	
			Check & Remedy	Check connection and the harness between the ICU PWB and the MFP PWB. Check the machine earth. Replace the ICU or the PRT PWB.	

Main code	Sub code	Title		<b>PRT DRAM trouble</b>	
<b>F9</b>	<b>01</b>	Display	Lamp/Message		
		Phenomenon	Detail	DRAM in the PRT PWB cannot be accessed.	
			Section	—	
		Case 1	Cause	Defective DRAM, defective installation of the DRAM	
			Check & Remedy	Replace the DRAM. Check connection of the DRAM.	

Main code	Sub code	Title		<b>NIC port check error</b>	
<b>F9</b>	<b>03</b>	Display	Lamp/Message		
		Phenomenon	Detail	NIC port check error	
			Section	—	
		Case 1	Cause	Defective connection of the NIC connector, defective NIC PWB, defective PRT PWB	
			Check & Remedy	Check the NIC connector again. Replace the HDD. Replace the PRT PWB.	

Main code	Sub code	Title		<b>HDD trouble (PRT controller detection)</b>	
<b>F9</b>	<b>20</b>	Display	Lamp/Message		
		Phenomenon	Detail	The HDD (option) does not operate normally in the machine with the HDD.	
			Section	—	
		Case 1	Cause	Defective connection of the HDD connector, defective HDD, defective PRT PWB	
			Check & Remedy	Check the HDD again. Replace the HDD. Replace the PRT PWB.	

Main code	Sub code	Title		Thermistor open (HL1)	
<b>H2</b>	<b>00</b>	Display	Lamp/Message		
		Phenomenon	Detail	Thermistor open	
			Section	Fusing	
		Case 1	Cause	Disconnection of the fusing section connector	
			Check & Remedy	Check the connector and the harness between the thermistor and the control PWB.	
		Case 2	Cause	The fusing unit is not installed.	
			Check & Remedy	Install the fusing unit.	
		Case 3	Cause	Thermistor trouble, control PWB trouble, AC power supply trouble	
			Check & Remedy	Replace the thermistor or the control PWB. Check the AC power supply.	

Main code	Sub code	Title		Thermistor open (HL2)	
<b>H2</b>	<b>01</b>	Display	Lamp/Message		
		Phenomenon	Detail	Thermistor open	
			Section	Fusing	
		Case 1	Cause	Disconnection of the fusing section connector	
			Check & Remedy	Check the connector and the harness between the thermistor and the control PWB.	
		Case 2	Cause	The fusing unit is not installed.	
			Check & Remedy	Install the fusing unit.	
		Case 3	Cause	Thermistor trouble, control PWB trouble, AC power supply trouble	
			Check & Remedy	Replace the thermistor or the control PWB. Check the AC power supply.	

Main code	Sub code	Title		Fusing section high temperature trouble (THS1)	
<b>H3</b>	<b>00</b>	Display	Lamp/Message		
		Phenomenon	Detail	The fusing temperature exceeds 230°C.	
			Section	Fusing	
		Common	Check	Use SIM 5-2 to check the heater lamp flashing operation.	
		Case 1	Cause	The heater lamp flashes properly with SIM 5-2. Thermistor trouble, disconnection of the fusing section connector	
			Check & Remedy	Check the thermistor and its harness. Cancel the error with SIM 14.	

Main code	Sub code	Title		Fusing section high temperature trouble (THS1)	
<b>H3</b>	<b>00</b>	Case 2	Cause	The heater lamp keeps ON with SIM 5-2. Control PWB trouble, AC power supply trouble	
			Check & Remedy	Check the AC PWB and the control PWB lamp control circuit. Cancel the error with SIM 14.	

Main code	Sub code	Title		Fusing section high temperature trouble (THS2)	
<b>H3</b>	<b>01</b>	Display	Lamp/Message		
		Phenomenon	Detail	The fusing temperature exceeds 230°C.	
			Section	Fusing	
		Common	Check	Use SIM 5-2 to check the heater lamp flashing operation.	
			Case 1	Cause	The heater lamp flashes properly with SIM 5-2. Thermistor trouble, disconnection of the fusing section connector
			Check & Remedy	Check the thermistor and its harness. Cancel the error with SIM 14.	
		Case 2	Cause	The heater lamp keeps ON with SIM 5-2. AC power supply trouble, control PWB trouble	
			Check & Remedy	Check the AC PWB and the control PWB lamp control circuit. Cancel the error with SIM 14.	

Main code	Sub code	Title		Fusing section low temperature trouble (HL1)	
<b>H4</b>	<b>00</b>	Display	Lamp/Message		
		Phenomenon	Detail	The fusing temperature is not reached within the specified time after turning on the power relay.	
			Section	Fusing	
		Common	Check	Use SIM 5-2 to check the heater lamp flashing operation.	
		Case 1	Cause	The heater lamp flashes properly with SIM 5-2. Thermistor trouble, PCU PWB (thermistor input circuit) trouble	
			Check & Remedy	Check the thermistor and its harness. Check the PCU PWB thermistor input circuit. Cancel the error with SIM 14.	

Main code	Sub code	Title	Fusing section low temperature trouble (HL1)	
<b>H4</b>	<b>00</b>	Case 2	Cause	The heater lamp keeps ON with SIM 5-2. Heater lamp trouble, thermostat trouble, interlock switch trouble, AC power supply trouble, PCU PWB (lamp control circuit) trouble
			Check & Remedy	Check for disconnection of the heater lamp and the thermostat. Check the interlock switch. Check the AC PWB and the PUC PWB lamp control circuit. Cancel the error with SIM 14.

Main code	Sub code	Title	Fusing section low temperature trouble (HL2)	
<b>H4</b>	<b>01</b>	Display	Lamp/Message	
		Phenomenon	Detail	The fusing temperature is not reached within the specified time after turning on the power relay.
			Section	Fusing
		Common	Check	Use SIM 5-2 to check the heater lamp flashing operation.
		Case 1	Cause	The heater lamp flashes properly with SIM 5-2. Thermistor trouble, PCU PWB (thermistor input circuit) trouble
			Check & Remedy	Check the thermistor and its harness. Check the PCU PWB thermistor input circuit. Cancel the error with SIM 14.
		Case 2	Cause	The heater lamp keeps ON with SIM 5-2. Heater lamp trouble, thermostat trouble, interlock switch trouble, AC power supply trouble, PCU PWB (lamp control circuit) trouble
			Check & Remedy	Check for disconnection of the heater lamp and the thermostat. Check the interlock switch. Check the AC PWB and the PUC PWB lamp control circuit. Cancel the error with SIM 14.

Main code	Sub code	Title	Five continuous detections of POD1 not-reached jam	
<b>H5</b>	<b>01</b>	Display	Lamp/Message	
		Phenomenon	Detail	POD1 not-reached jams are detected for five times continuously.
			Section	Fusing
		Case 1	Cause	A fusing jam is not canceled completely. (Jam paper remains inside the machine.)
			Check & Remedy	Check remaining jam paper (winding). Cancel the error with SIM 14.
		Case 2	Cause	POD1 sensor trouble, or harness disconnection
			Check & Remedy	Check POD1 sensor harness. Cancel the error with SIM 14.
		Case 3	Cause	Improper installation of the fusing unit
			Check & Remedy	Check installation of the fusing unit. Cancel the error with SIM 14.

Main code	Sub code	Title	Mirror feed trouble	
<b>L1</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	Mirror feed is not completed within the specified time.
			Section	—
		Case 1	Cause	Mirror unit trouble, mirror wire breakage
			Check & Remedy	Use SIM 1-1 to check the mirror operation.

Main code	Sub code	Title	Mirror return trouble	
<b>L3</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	Mirror return is not completed within the specified time.
			Section	—
		Case 1	Cause	Mirror unit trouble, mirror wire breakage
			Check & Remedy	Use SIM 1-1 to check the mirror operation.

Main code	Sub code	Title		Paper feed motor lock trouble
<b>L4</b>	<b>02</b>	Display		Lamp/Message
		Phenomenon	Detail	In warm-up, or in canceling a jam, the paper feed motor is rotated, and the lock signal is not detected within 1sec.
			Section	Paper feed
		Case 1	Cause	Paper feed motor trouble, disconnection of the harness between the PCU PWB and the paper feed motor, control circuit trouble
			Check & Remedy	Use SIM 6-1 to check the paper feed motor operation. Check the harness and the connector between the PCU PWB and the paper feed motor.

Main code	Sub code	Title		Transfer belt lift motor trouble
<b>L4</b>	<b>06</b>	Display		Lamp/Message
		Phenomenon	Detail	When the belt motor lifts up or down, the change in the belt home position sensor characteristics is not detected within the specified time. (When the motor lifts up, the lower limit sensor remains ON after the specified time.) (When the motor lifts down, the lower limit sensor does not turn on after the specified time.)
			Section	Paper feed
		Case 1	Cause	Belt lift motor trouble, disconnection of the harness between the PCU PWB and the belt lift motor, control circuit trouble
			Check & Remedy	Use SIM 6-1 to check the belt lift motor operation. Check the harness and the connector between the PCU PWB and the belt lift motor.

Main code	Sub code	Title		Transfer belt motor trouble
<b>L4</b>	<b>07</b>	Display		Lamp/Message
		Phenomenon	Detail	1) Before driving the drum, the calibration plate is opened with the process control BK sensor, and light is emitted with the gain value of 0 and with the light emitting quantity fixed to 120. The average of ten light quantities repeats to be 5 or less for 3 times continuously. 2) Immediately after driving the drum, the calibration plate is opened with the process control BK sensor, and one whole turn of the belt surface is scanned with the gain value of 0 and with the light emitting quantity at the optimum value (120 – 50). The difference between the max. value and the min. value of the scanned data is 5 or less.
			Section	Paper feed
		Case 1	Cause	Transfer belt motor connector disconnection, process control sensor connector disconnection, process control BK sensor defect, defective connection of the harness between the PCU PWB and the transfer belt motor, defective control circuit
			Check & Remedy	Check the transfer belt motor operation with SIM25-1. Check the process control sensor operation with SIM44-2. Check the harness and the connector between the PCU PWB and the transfer belt motor.

Main code	Sub code	Title		Shift motor trouble
<b>L4</b>	<b>11</b>	Display	Lamp/Message	
		Phenomenon	Detail	When initializing the shift motor, the change in the shift motor home position sensor characteristics is not detected within the specified time.
			Section	Paper feed
		Case 1	Cause	Shift motor trouble, disconnection of the harness between the PCU PWB and the shift motor, control circuit trouble
			Check & Remedy	Use SIM 6-1 to check the shift motor operation. Use SIM 30-1 to check the shift motor home position sensor. Check the harness and the connector between the PCU PWB and the shift motor.

Main code	Sub code	Title		Full wave signal not provided
<b>L8</b>	<b>01</b>	Display	Lamp/Message	
		Phenomenon	Detail	The full wave signal is not provided.
			Section	—
		Case 1	Cause	PCU PWB trouble
			Check & Remedy	Replace the PCU PWB.
		Case 2	Cause	Power supply unit trouble
			Check & Remedy	Replace the power supply unit.
		Case 3	Cause	Harness trouble
			Check & Remedy	Check connection of the harness and the connector.

Main code	Sub code	Title		Full wave signal width abnormality
<b>L8</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	An abnormality of the full wave signal frequency is detected. (The detected frequency is 65kHz or above, or 45kHz or below.)
			Section	—
		Case 1	Cause	PCU PWB trouble
			Check & Remedy	Replace the PCU PWB.
		Case 2	Cause	Power supply unit trouble
			Check & Remedy	Replace the power supply unit.
		Case 3	Cause	Harness trouble
			Check & Remedy	Check connection of the harness and the connector.

Main code	Sub code	Title		Main power switch abnormality detection
<b>L8</b>	<b>04</b>	Display	Lamp/Message	
		Phenomenon	Detail	Though the PCU program is operating (the power is supplied), the main power switch OFF is detected.
			Section	—
		Case 1	Cause	Main power switch trouble
			Check & Remedy	Replace the main power switch.
		Case 2	Cause	Power supply unit trouble
			Check & Remedy	Replace the power supply unit.
		Case 3	Cause	Harness trouble
			Check & Remedy	Check connection of the harness and the connector.

Main code	Sub code	Title		RIC copy inhibit signal reception
<b>PF</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	The copy inhibit signal from RIC (host) is received.
			Section	—
		Case 1	Cause	Depends on a judgment by the host.
			Check & Remedy	Make notification to the host. Use SIM 27-1 to ignore.

Main code	Sub code	Title		ICU-OPE communication trouble (ICU/OPE detection)
<b>U0</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	Communication establishment error, framing/parity/protocol error ROM version mismatching
			Section	—
		Case 1	Cause	Disconnection of the operation panel communication connector of the ICU/MFP PWB, harness trouble between the ICU PWB and the MFP PWB.
			Check & Remedy	Check the connector and the harness between the ICU PWB and the MFP PWB.
		Case 2	Cause	ICU/MFP PWB trouble
			Check & Remedy	Check grounding of the machine. Replace the ICU PWB or the MFP PWB.
		Case 3	Cause	When the OPE-ROM without security functions is installed for the ICU-ROM with security kit functions.
			Check & Remedy	Check the ROM version, and replace it if necessary.

Main code	Sub code	Title		RTC read trouble
<b>U1</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	Abnormal value is read from the RTC on the ICU PWB.
			Section	—
		Case 1	Cause	RTC circuit abnormality
			Check & Remedy	Set the time again with the key operation, and check that time advances properly. Check the RTC circuit.

Main code	Sub code	Title		EEPROM read/write error (ICU detection)
<b>U2</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	EEPROM version error EEPROM write error
			Section	—
		Case 1	Cause	EEPROM trouble. EEPROM is not initialized.
			Check & Remedy	1. Check that the EEPROM is properly set. 2. Use SIM 16 to cancel the error.
		Case 2	Cause	ICU PWB EEPROM access circuit trouble
			Check & Remedy	1. To prevent against deletion of the counter data and the adjustment data, record them with the simulation. (When a printer option is installed, use SIM 22-1 to record the counter data and the adjustment data.) 2. Replace the ICU PWB. 3. Use SIM 16 to cancel the error.

Main code	Sub code	Title		EEPROM check sum error (ICU detection)
<b>U2</b>	<b>11</b>	Display	Lamp/Message	
		Phenomenon	Detail	EEPROM (ICU) check sum error
			Section	—
		Case 1	Cause	EEPROM trouble
			Check & Remedy	1. Check that the EEPROM is properly set. 2. Use SIM 16 to cancel the error.
		Case 2	Cause	Control circuit freeze by noises. ICU PWB EEPROM access circuit trouble.
			Check & Remedy	1. To prevent against deletion of the counter data and the adjustment data, record them with the simulation. (When a printer option is installed, use SIM 22-1 to record the counter data and the adjustment data.) 2. Replace the ICU PWB. 3. Use SIM 16 to cancel the error.

Main code	Sub code	Title		Production No. data discrepancy
<b>U2</b>	<b>30</b>	Display	Lamp/Message	
		Phenomenon	Detail	The production No. recorded in the PCU differs from that recorded in the ICU.
			Section	—
		Case 1	Cause	EEPROM is not exchanged when replacing the PCU/ICU PWB.
			Check & Remedy	Check that the EEPROM is properly installed. When replacement, check that the EEPROM before replacement is inserted to the board after replacement.

Main code	Sub code	Title	EEPROM read/write error (SCN)	
<b>U2</b>	<b>80</b>	Display	Lamp/Message	
		Phenomenon	Detail	EEPROM version error EEPROM write error
			Section	—
		Case 1	Cause	EEPROM trouble, Insertion of EEPROM which is not initialized or defective.
			Check & Remedy	1. Check that the EEPROM is properly inserted. 2. Use SIM 16 to cancel the error.
		Case 2	Cause	SCN PWB EEPROM access circuit trouble
			Check & Remedy	1. To prevent against deletion of the counter data and the adjustment data, record them with the simulation. (When a printer option is installed, use SIM 22-1 to record the counter data and the adjustment data.) 2. Replace the SCN PWB. 3. Use SIM 16 to cancel the error.

Main code	Sub code	Title	EEPROM read/write error (PCU)	
<b>U2</b>	<b>90</b>	Display	Lamp/Message	
		Phenomenon	Detail	EEPROM version error EEPROM write error
			Section	—
		Case 1	Cause	EEPROM trouble, Insertion of EEPROM which is not initialized or defective.
			Check & Remedy	1. Check that the EEPROM is properly inserted. 2. Use SIM 16 to cancel the error.
		Case 2	Cause	PCU PWB EEPROM access circuit trouble
			Check & Remedy	1. To prevent against deletion of the counter data and the adjustment data, record them with the simulation. (When a printer option is installed, use SIM 22-1 to record the counter data and the adjustment data.) 2. Replace the PCU PWB. 3. Use SIM 16 to cancel the error.

Main code	Sub code	Title	Adjustment value check sum error (SCN)	
<b>U2</b>	<b>81</b>	Display	Lamp/Message	
		Phenomenon	Detail	EEPROM (SCN) check sum error
			Section	—
		Case 1	Cause	EEPROM trouble
			Check & Remedy	1. Check that the EEPROM is properly inserted. 2. Use SIM 16 to cancel the error.
		Case 2	Cause	SCN PWB EEPROM access circuit trouble
			Check & Remedy	1. To prevent against deletion of the counter data and the adjustment data, record them with the simulation. (When a printer option is installed, use SIM 22-1 to record the counter data and the adjustment data.) 2. Replace the SCN PWB. 3. Use SIM 16 to cancel the error.

Main code	Sub code	Title	Adjustment value check sum error (PCU)	
<b>U2</b>	<b>91</b>	Display	Lamp/Message	
		Phenomenon	Detail	EEPROM (PCU) check sum error
			Section	—
		Case 1	Cause	EEPROM trouble
			Check & Remedy	1. Check that the EEPROM is properly inserted. 2. Use SIM 16 to cancel the error.
		Case 2	Cause	Control circuit freeze caused by noises, PCU PWB EEPROM access circuit trouble
			Check & Remedy	1. To prevent against deletion of the counter data and the adjustment data, record them with the simulation. (When a printer option is installed, use SIM 22-1 to record the counter data and the adjustment data.) 2. Replace the PCU PWB. 3. Use SIM 16 to cancel the error.



Main code	Sub code	Title	ADU alignment plate operation abnormality	
<b>U4</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	The alignment plate does not move from the home position within 1sec when it must move. Return to the home position is not detected for 5sec or more.
			Section	ADU
		Case 1	Cause	Home position sensor trouble
			Check & Remedy	Use SIM 9-2 to detect the home position sensor.
		Case 2	Cause	Alignment plate shift motor trouble
			Check & Remedy	Use SIM 9-4 to check the alignment plate operation.
		Case 3	Cause	Disconnection of the harness between the ADU control PWB and the motor sensor.
			Check & Remedy	Check connection of the harness between the ADU control PWB and the motor sensor.
		Case 4	Cause	Alignment plate operation belt, gear breakage or improper adjustment
			Check & Remedy	Remove the ADU, and check for breakage of the gear and the belt.

Main code	Sub code	Title	ADF communication trouble	
<b>U5</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	Communication test error when turning on the power or after canceling the exclusive simulation. Communication error with the ADF
			Section	ADF
		Case 1	Cause	Improper connection or disconnection of the connector and the harness
			Check & Remedy	Check the connector and the harness in the communication line. Turn OFF/ON the power to cancel the error.
		Case 2	Cause	ADF control PWB trouble, control PWB (MFP) trouble, malfunction caused by noises
			Check & Remedy	Check the ADF control PWB and the control PWB (MFP). Turn OFF/ON the power to cancel the error.

Main code	Sub code	Title	ADF resist sensor trouble	
<b>U5</b>	<b>01</b>	Display	Lamp/Message	
		Phenomenon	Detail	ADF resist sensor detection trouble
			Section	ADF
		Case 1	Cause	Sensor trouble
			Check & Remedy	Use SIM 2-2 to check the resist sensor detection.
		Case 2	Cause	Disconnection of the harness in the ADF.
			Check & Remedy	Check the harness in the ADF.
		Case 3	Cause	ADF control PWB trouble
			Check & Remedy	Replace the ADF control PWB.

Main code	Sub code	Title	ADF repulsion sensor trouble	
<b>U5</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	ADF paper feed/reverse sensor detection trouble
			Section	ADF
		Case 1	Cause	Sensor trouble
			Check & Remedy	Use SIM 2-2 to check the resist sensor detection.
		Case 2	Cause	Disconnection of the harness in the ADF.
			Check & Remedy	Check the harness in the ADF.
		Case 3	Cause	ADF control PWB trouble
			Check & Remedy	Replace the ADF control PWB.

Main code	Sub code	Title	ADF timing sensor trouble	
<b>U5</b>	<b>03</b>	Display	Lamp/Message	
		Phenomenon	Detail	ADF timing sensor detection trouble
			Section	ADF
		Case 1	Cause	Sensor trouble
			Check & Remedy	Use SIM 2-2 to check the resist sensor detection.
		Case 2	Cause	Disconnection of the harness in the ADF.
			Check & Remedy	Check the harness in the ADF.
		Case 3	Cause	ADF control PWB trouble
			Check & Remedy	Replace the ADF control PWB.

Main code	Sub code	Title	Paper feed motor operation abnormality	
<b>U5</b>	<b>11</b>	Display	Lamp/Message	
		Phenomenon	Detail	Paper feed motor operation abnormality
			Section	ADF
		Case 1	Cause	Motor lock, motor RPM abnormality, Over current to the motor, ADF control PWB trouble
			Check & Remedy	Use SIM 2-2/3/4 to check the paper feed motor operation.

Main code	Sub code	Title	Desk communication trouble	
<b>U6</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	Desk communication error, communication test error when turning on the power or after canceling the exclusive simulation.
			Section	Desk
		Case 1	Cause	Improper connection or disconnection of the connector and the harness.
			Check & Remedy	Check the connector and the harness in the communication line. Turn OFF/ON the power to cancel the error.
		Case 2	Cause	Desk control PWB trouble, control PWB (PCU) trouble, malfunction caused by noises
			Check & Remedy	Turn OFF/ON the power to cancel the error.

Main code	Sub code	Title	Desk cassette 1 lift-up trouble	
<b>U6</b>	<b>01</b>	Display	Lamp/Message	
		Phenomenon	Detail	DLUD1 does not turn on within the specified time.
			Section	Desk
		Case 1	Cause	DLUD1 sensor trouble, paper feed unit harness disconnection
			Check & Remedy	Check DLUD1 and the harness and the connector.
		Case 2	Cause	Cassette 1 lift-up motor trouble, desk PWB, lift-up unit trouble
			Check & Remedy	Check the lift-up unit.

Main code	Sub code	Title	Desk cassette 2 lift-up trouble	
<b>U6</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	DLUD2 does not turn on within the specified time.
			Section	Desk
		Case 1	Cause	DLUD2 sensor trouble, paper feed unit harness disconnection
			Check & Remedy	Check DLUD2 and the harness and the connector.
		Case 2	Cause	Cassette 2 lift-up motor trouble, desk PWB, lift-up unit trouble
			Check & Remedy	Check the lift-up unit.

Main code	Sub code	Title	Desk cassette 3 lift-up trouble	
<b>U6</b>	<b>03</b>	Display	Lamp/Message	
		Phenomenon	Detail	DLUD3 does not turn on within the specified time.
			Section	Desk
		Case 1	Cause	DLUD3 sensor trouble, paper feed unit harness disconnection
			Check & Remedy	Check DLUD3 and the harness and the connector.
		Case 2	Cause	Cassette 3 lift-up motor trouble, desk PWB, lift-up unit trouble
			Check & Remedy	Check the lift-up unit.

Main code	Sub code	Title	Desk transport motor trouble	
<b>U6</b>	<b>10</b>	Display	Lamp/Message	
		Phenomenon	Detail	Desk transport motor operation trouble
			Section	—
		Case 1	Cause	Motor lock, motor RPM abnormality, Over current to the motor, console finisher control PWB trouble
			Check & Remedy	Use SIM 3-3 to check the staple motor operation.

Main code	Sub code	Title	RIC communication trouble	
<b>U7</b>	<b>00</b>	Display	Lamp/Message	
		Phenomenon	Detail	RIC communication error, communication test error when turning on the power or after canceling the exclusive simulation.
			Section	—
		Case 1	Cause	Improper connection or disconnection of the connector and the harness
			Check & Remedy	Check the connector and the harness in the communication line. Turn OFF/ON the power to cancel the error.
		Case 2	Cause	RIC control PWB trouble, control PWB (PCU) trouble, malfunction caused by noises
			Check & Remedy	Turn OFF/ON the power to cancel the error.

Main code	Sub code	Title	CPT-ASIC trouble (MFP PWB trouble)	
<b>UC</b>	<b>02</b>	Display	Lamp/Message	
		Phenomenon	Detail	Access abnormality to CPT-ASIC (ASIC does not operate normally.)
			Section	MFP PWB
		Case 1	Cause	CPT-ASIC abnormality MFP PWB abnormality
			Check & Remedy	Turn OFF/ON repeatedly. If the trouble is not canceled, replace the MFP PWB.